Their Leadership and Ownership: Concepts for Warfare By, With and Through

by COL J. Patrick Work

In January 2017, 2nd Brigade Combat Team (BCT), 82nd Airborne Division, deployed to bolster the Iraqi Security Forces (ISF) in the campaign to annihilate the Islamic State of Iraq and Syria (ISIS) and its so-called caliphate. Task Force Falcon joined the coalition advise-and-assist (A&A) effort with two weeks remaining during the 100-day offensive to retake east Mosul, and for the next eight months, we wrestled a complex environment with a simple framework: help the ISF and hurt ISIS every day.

Naturally, we had missteps, but our team also served ISF and coalition commanders well on some terribly uncertain days. We mixed innovative concepts and straightforward tactics to attack ISIS by, with and through the ISF, yet the entire effort always centered on our partners' leadership and ownership of exceptionally nasty ground-combat operations. Several of our candid and contextualized perspectives on organization, mindset and skillset offer useful examples and angles for leaders to ponder as we consider future excursions with this style of high-intensity security-force assistance.[1]

Imperfect analogy

Anyone who has experienced a combat-training-center (CTC) rotation has a useful model for comprehending Task Force Falcon's core organizational and operational concepts. Fundamentally, the CTC's observer-coach-trainer (O/C/T) network wraps itself around a rotational unit with a parallel structure connected by dependable communications and disciplined information flows. The O/C/T network's goal is to help unit commanders improve their warfighting craft, largely by helping them see the opposing force (opfor), see the ill-structured environment and see themselves. The O/C/T network may even feel intrusive at times as its nodes maintain contact with the rotational unit at every echelon. Finally, assuming competence is the O/C/T network's anchor point; many of the same traits that make A&A teams effective also distinguish the most useful O/C/Ts. Empathy, humility and patience truly matter.

Perhaps most importantly, the O/C/T network is not embroiled in "fighting" the opfor nor has the burden of external evaluation. Therefore O/C/Ts routinely achieve a level of shared understanding that outstrips the rotational unit's understanding. Of course, they are not all-knowing; plenty of conversations occur without O/C/T oversight, and they periodically misread events, personalities or trends. Still, the O/C/T network is well-postured to provide vertically aligned insights, perspectives and ideas that help the rotational unit advance against the opfor in an uncertain environment.

This is an imperfect analogy, for sure, but thus far we have only discussed similarities that attend to the "advise" side of A&A operations.

As for the "assist" aspects of A&A, start by picturing the same O/C/Ts armed with enormous amounts of secure bandwidth, intelligence capacity and strike capabilities. Moreover, imagine that this lethal O/C/T network's mission – even ***moral obligation*** – also includes attacking the opfor relentlessly to ensure the rotational unit wins. Now visualize this "lethal O/C/T network" as only one among equals in an aggressive ecosystem that includes special operations, joint and other coalition stakeholders who are also united in their desire to thrash the opfor.

As inadequate as this comparison may be, we all reason by analogy: Task Force Falcon operated like this fictional, lethal O/C/T network, only the stakes were infinitely more deadly and complex. Our field-grade commanders wore two hats, advising ISF corps or division commanders in addition to their traditional responsibilities. Likewise, our company-grade commanders advised Iraqi army or federal-police (fedpol) brigades. Combat advising at these echelons maintained a natural distance between our teams and the savagery of close combat, and this space probably reinforced our focus on helping our partners see the enemy, the environment and themselves rather than doing the fighting for them.

‘6 As’ of A&A operations

Through the “lethal O/C/T network” analogy, we introduced a handful of the concepts inherent to A&A operations. “A3E” or *advise, assist, accompany* and *enable* entered the coalition lexicon before Task Force Falcon arrived in Iraq. The “third A” of A3E, *accompany*, ostensibly delineated the riskier forward-posturing of combat advisers to help accelerate the counter-ISIS campaign. For Task Force Falcon, we never knew the difference – there was no before-and-after *accompany* perspective for us to have. Because we transitioned while the ISF was still fighting in east Mosul, our combat advisers had to cultivate relations with ISF generals while in contact. Thus, close proximity to ISF commanders on the battlefield was always a signature component of our mission, so we may have intuitively leaned toward a handful of A’s other than *advise, assist* and *accompany* as we honed our A&A mindset and skillset in Mosul’s cauldron of violence.

All six A’s, and the nuanced concepts and challenges they represent, are security-force-assistance lessons we learned fighting by, with and through the ISF.

Advise: Our teams helped ISF commanders think through their tactical and logistics problems with an eye toward exploiting opportunities, assessing risk and making sober decisions on how to apply their finite resources. Through nested multi-echelon engagement, Task Force Falcon pressed consistent messages at every echelon.

In fact, we frequently helped the Combined Joint Task Force (CJTF) or Coalition Joint Forces Land Component Command (CJFLCC) commanders be our “finishers.” Both of them were key drivers of coalition combat advising as they engaged at the executive levels to influence ISF activities, all the while reinforcing our nested message from the top down.

Assist: Our partners rarely used the “red pen” before designing a scheme of maneuver. Therefore, some of our most important assistance to them was coaching intelligence-driven operations. First, our A&A network shared intelligence information and products to the extent we were allowed. As we helped the ISF prepare to attack Tal Afar in August 2017, we actually arranged the entire brigade intelligence enterprise to help them understand which attack axes exploited ISIS’s most vulnerable defenses.

The value of our advice was found in their execution: our partners dominated ISIS in a 12-day blitz to retake the city. More on military intelligence (MI) later, but I often employed our talented S-2, MAJ Kevin Ryan, as a finisher for our best military advice: Staff LTG Abdul Amir Yarallah al-Lami (known as sLTG A3), the Government of Iraq’s (GoI) overall joint-forces commander, always had time for Ryan’s insights. Even more telling, the fedpol corps commander, a three-star in charge of more than 60,000 troops, frequently sought 2LT Dave Moehling’s perspectives on ISIS. Moehling, the assistant S-2 for 1-73 Cavalry and a tremendous MI mind, always gave informed advice. This consistent, intelligence-driven A&A gave our teams a sharper, more credible edge.

Assist’s lethal expression was obviously precision fires. After ISIS conquered Mosul, it prepared a formidable defense for more than two years before the ISF launched the counterattack in October 2016. The defense involved a monstrous mortar capacity; a legion of suicide car bombers whose high-payoff target list was topped by ISF tanks and engineering assets; and droves of ISIS infantry. The ISF stubbornly moved through this medley of violence for nine months, reinforced by coalition strikes from artillery, attack helicopters, jets and bombers.

Figure 1. An ISIS unmanned aerial vehicle captured by Iraqi federal police rests on a table at an intelligence-sharing meeting at the Joint Operations Center at Qayyarah West Airfield. Deployed in support of CJTF-OIR, coalition forces enable their ISF partners through the A&A mission, contributing planning, intelligence collection and analysis, force protection and precision fires to achieve the military defeat of ISIS. CJTF-OIR is the global coalition to defeat ISIS in Iraq and Syria. *(Photo by SSG Jason Hull)*

Meeting the ISF requirement for responsive and precise fires, more so than other form of assistance, gave our partners confidence on the hardest days. I will share more on fires later, but our targeteers, cannoneers and radar specialists of 2-319 Airborne Field Artillery Regiment, led by LTC Dan Gibson and CSM Omari Ballou, helped devastate ISIS' centrally controlled batteries in Mosul and Tal Afar. Our company and troop commanders, backed by Air Force joint terminal attack controllers (JTAC) and sufficient bandwidth, frequently observed and directed these attacks from within ISF command posts.

Accompany: As discussed previously, our task force was operating forward with ISF brigade, division and corps commanders upon arrival in January. Predictable and persistent contact with ISF commanders was crucial to building relationships of trust and accountability, but accompanying them also fed our efforts to assure, anticipate and be agile. Accompanying the ISF gave our combat advisers a "fingertips" sense for the combat's direction and intensity. This helped our "lethal O/C/T network" provide timely and useful assistance at the point of decision while also pumping perspective to promote shared understanding and unity of effort.

Assure: During my last battlefield circulation with MG Joe Martin, former commanding general of CJFLCC-Operation Inherent Resolve (OIR), before he departed in July, I offered my observation that the "third A" in A3E should stand for *assure*, not *accompany*. We have countless examples of how our physical presence, ideas or fires – or a confluence of these inputs – gave ISF commanders the confidence to keep attacking. In fact, I now have a new paradigm for what non-lethal contact can mean. In OIR, when I was not with sLTG A3, we maintained contact. For the very reason of assurance, quality translators mattered immensely to us. During frequent times of crisis, we encouraged all our advisers to continually remind the ISF they could count on us and their success was our success.

As Mosul's ferocious drama neared its end in July, ISIS attempted to break out of a troubled triangle called the Hawijah Pocket when it seized the historically vulnerable village of Imam Gharbi along the Tigris River. The Battle of Mosul churned, but we quickly repositioned a platoon of M777 howitzers and deployed CPT Mike Beum's [company commander] A&A team from A/2-325 Airborne Infantry Regiment (AIR). We also put our artillery-battalion executive officer, MAJ Steve Ackerson, in charge of a JTAC-enabled strike cell at the Salah ad Din Operations Command's (SADOC) forward command post. After witnessing the following demonstration of coalition leverage, CPT Zach Beecher, the forward coordinator for the Iraqi Train and Equip Fund and one of 407th Brigade-Support Battalion (BSB)'s most cerebral leaders, coined the phrase "targeted assurance."

Targeted assurance described an adviser's subtle choice between competing ISF partners or agendas, always keeping CJFLCC's and sLTG A3's goals front of mind. During the ISIS incursion to Imam Gharbi, I chose to publically critique an Iraqi army general who was underperforming and embolden the SADOC commander, who was serious about attacking. It worked. Together, the SADOC's *ad hoc* team of Ministry of Interior forces, supported by a small Task Force Falcon strike cell, took charge of the unraveling situation and applied an A&A mainstay: "stimulate and exploit." Our A&A network's commitment of less than 50 coalition troops, a 24-hour orbit of unblinking full-motion video (FMV) collection with solid analytics and some vicious precision fires were enough to help the ISF retake the village from the desperate enemy just five days after the targeted-assurance episode.

Anticipate: As we discussed the A3E profile previously, I mentioned my proposal for a more relevant "third A," but there is more to the story. MG Martin actually countered with another insightful candidate, a*nticipate*. To be clear, the ISF we enabled during OIR did not issue combat orders nor rehearse operations. In fact, senior commanders normally returned from Baghdad just in time for the start of another bloody phase of the attack. When our partners departed northern Iraq during the transitions, we continued to overcommunicate and maintain a disciplined battle rhythm to ensure our A&A network's shared understanding in spite of lapsed Iraqi communications. In fact, during these periods, our partners only occasionally felt compelled to call us with essential updates, so we relied heavily on the CJFLCC commander and senior staff in Baghdad to help us posture our A&A capabilities.

Even as we transitioned the A&A mission to 3/10th Mountain Division, the ISF plan was evolving daily as the start of the Hawijah offensive approached. As we departed, CJFLCC was organizing a medical-evacuation architecture without absolute certainty of ISF intentions. The incoming team was arranging its fires architecture and basing posture with an eye toward maximum flexibility to absorb late change.

Nothing was first-order in Iraq's political-military environment. As stated previously, Task Force Falcon could never fall in love with a plan, and we continuously challenged our own assumptions. Our A&A network had to always listen, maintain contact with our counterparts and apply the fundamentals of mission command to make the best decisions we could. However, when we sensed increased risk, the commanding general or I would direct clarifying questions to sLTG A3, discussing resource trade-offs with him in a very transparent manner.

Agility: One of Task Force Falcon's guiding ideas was that ISF should never have to wait for us. Our commanders and teams nimbly changed directions in response to updated GoI decisions or emergent opportunities to damage ISIS. In fact, 2-325 AIR's support to 15th Iraqi Army Division near Badush is a superbly illustrative example. While the Battle of Mosul still raged, sLTG A3 decided to press the ISIS disruption zone to the east of Tal Afar. He shared his thinking with us during a routine key-leader engagement on a Monday evening, and by Friday morning, Task Force White Falcon, led by LTC James Downing and CSM Santos Cavazos, was on the move.

In a matter of four days, we synchronized logistics as Downing's team met its new partner, displaced nearly 30 kilometers, began building a new assembly area and integrated a battery of 155mm howitzers that were previously based with our cavalry squadron. We kept it simple during these frequent jumps: there were no "routine" patrols, and teams lived out of rucksacks initially. The priorities were always establishing the defense and long-range communications.

Fights at echelon

Supporting ISF decisive action required Task Force Falcon to synchronize effects across the warfighting functions to create advantageous situations for their ground-combat operations. Thus I viewed our headquarters' chief responsibility as organizing the key capabilities resident in the brigade's artillery, support and engineer battalions, the half of the BCT that does not ordinarily maneuver against the enemy. In addition to our usual obligations to prioritize, resource, synchronize, inform, empower and manage risk, myself and our Task Force Falcon staff also had "four fights" to continually synchronize: sustainment, intelligence-driven A&A, lethal targeting with precision fires and counter-fire and, as always, risk management.

Therefore, another way to look at fighting by, with and through in this context is that we did for ISF commanders what we should normally do for our own maneuver battalions. We synchronized materiel, intelligence collection and analysis, and strike support around the ISF's attack against its own near-peer competitor, ISIS. Not only did the

ISF commanders embrace their spearhead roles in the fight, but their maneuver drove the circle of "stimulate and exploit" moves that ultimately allowed them to advance, seize ground and liberate their countrymen.

Most missions we prepared for in training were transferable to this OIR context. Rather than synchronizing the combat potential of the BCT to provide our battalions with tactical overmatch, we massed effects for ISF brigades. Thus, our training doctrine – an approach that builds trust through realistic mission-essential task list-driven work and prepares BCTs for decisive-action wartime requirements – also developed the essential skill sets needed for this muscular style of security-force assistance.

Sustainment

Logistics was a balancing act of trade-offs for us. Our unambiguous priority was to help the ISF win, but more than half our logistics specialists and 90 percent of our property did not deploy. Clearly, much of our A&A network's agility depended on our flexible and tireless logisticians. Also, key CJFLCC-OIR logistics planners, contracting officers and the deputy commanders were decidedly committed to the fight in Nineveh despite living in Baghdad. Together, the coalition logisticians, another team that believed ISF should never have to wait for us, thought fast and fought fast to keep pace with the battle's relentless dynamism.

Even though we had a limited organic ground-distribution capacity to meet the mission's decentralized and simultaneous logistics requirements, LTC Elizabeth Curtis, commander of 407th BSB, and her team worked closely with logisticians at every echelon to generate distribution options through a combination of host-nation contracting and our own finite assets. Most moves required security, and some also called for deliberate route clearance.

Perhaps self-evident, but our density of deployed supply specialists, food-service Soldiers and maintenance technicians really mattered. First, one can imagine the supply expertise necessary to steer accountability of organizational and theater-provided equipment (TPE), routine supply transactions, numerous change-of-command inventories and budget execution. Keep in mind that we only deployed about half our team overall, so there were similar requirements across our brigade at Fort Bragg as well. Specifically, we divided the BCT's already stretched property-book office for about two-thirds of our nine-month deployment because of the split responsibilities.

An obvious implication of deploying so little of our organic property was a vast dependence on TPE. Meanwhile, the Army's automated system of record, Global Combat Support System-Army, also updated during the Mosul operation, increasing churn. All these activities or programs required command emphasis and consistent supervision.

We also depended heavily on contracting of equipment and materiel to move and sustain the distributed artillery positions and A&A nodes. A critical aspect of this was certainly the need for anticipation and agility in our decision-making; we were comfortable being uncomfortable and could never wait too long to commit. As previously mentioned, one of our foundational attitudes was that we had no extra Soldiers, and many of our leaders made memorable contributions while filling nontraditional roles.

The host of junior officers who catalyzed our vital contracting enterprise were a sterling example of this. In fact, our BCT food-service tech, CW3 Jason Page, masterfully managed these contracting-officer representatives (COR), particularly LTC Sebastian Pastor's [commander, 37th Brigade Engineer Battalion (BEB)] CORs, who bounced all over northern Iraq coordinating scopes of work for contractors, protection requirements and other engineer targets.

Change was the norm as Task Force Falcon fed adviser teams and artillery specialists who operated from many austere and temporary patrol bases while ISF operations progressed. On a couple of occasions, all it took was an accurate enemy mortar round or two to force teams to move their patrol bases twice in a week. Also, our combat-vehicle fleet swelled during our first 60 days in Iraq, so on top of the other untried TPE, our team's maintenance enterprise depended on field-service representatives (FSR) for everything from essential ground-mobility platforms to counter-unmanned aerial systems (UAS) technologies. Therefore, our team was never truly self-sufficient with key communications, protection and mobility systems, and we carefully managed a throng of FSRs to meet both programmed and emergent maintenance requirements.

Finally, we had to maintain our people. This required preventative and reactive capacity in addition to the CJFLCC's supporting cast. We managed a small pool of chaplains, environmental-health professionals and behavioral-health

specialists centrally. Eventually, we also included a dentist to round out our arrangement of medical doctors from the Army's professional-filler system. We were aware that our task force's distributed forces and the human dimension of our Soldiers in a hazardous environment came with risk, so we strove to maintain our counseling, integration and health-promotion practices in Iraq and at home station. Every loss is a loss, and we needed to keep every Soldier in the fight.

Intelligence-driven A&A

When people have asked me what the hardest aspect of our A&A mission was, I have never hesitated nor overthought my response: it was ISIS. As stated previously, the ISF very rarely ran intel-driven operations of their own, so we drove a regime of intel-driven A&A. The partners certainly understood ISIS tactics and the broad anti-government and sectarian underpinnings of ISIS. They also proved to be capable collectors. For example, much of 92nd Brigade, 15th Iraqi Army Division, was comprised of Tal Afar natives who were also based at Tal Afar airfield as the ISF attack approached in August 2017. Many of the ISF's tips and atmospherics were immediately helpful, but they struggled with assessment.

By March 2017, we had seen enough in Mosul to begin arranging a useful threat model for ISIS's complex and layered defense. The model generally held for Tal Afar as well. It became apparent that ISIS's defense depended on four critical factors:

- Suicide vehicle-borne improvised explosive devices (SVBIEDs);
- Scores of five-man infantry fighting squads;
- Centralized command-and-control (C2); and
- ISF inactivity.

Our understanding of how ISIS fought also revealed insights to our contextualized targeting process; because of the "stimulate and exploit" interplay of current operations in Mosul, most of our collection and analytic capacities focused on finding and fixing ISIS within several city blocks of the ISF forward-line-of-troops (FLoT). Dynamic targeting to protect ISF units against ISIS SVBIEDs, infantry ambushes or mortar batteries along the FLoT was crucial for assistance and assurance.

On the other hand, as the ISF transitioned from Mosul to Tal Afar in July, we adjusted the task force's reconnaissance and thinking to feed a deliberate targeting process. We also pursued a methodical intelligence preparation of the battlefield (IPB) unlike anything we could have achieved in Mosul's ever-shifting slugfest.

ISIS tactics typically came to life in a disruption zone marked by loosely coordinated indirect fires (IDF); roads pocked with dirt berm, ditches, derelict vehicles or static VBIED obstacles; and limited commercial-off-the-shelf UAS reconnaissance. The battle zone may have been organized into multiple defensive belts or sub-battle zones where ISIS infantry units shouldered a heavy burden, producing "sniper-like effects" even if they were poorly skilled. ISIS also learned to compress its exposure to coalition detection, shrinking the distance from SVBIED staging bases to strike zones, an innovation that Les Grau and Timothy Thomas referred to as "hugging" in their analysis of Chechen fighters during Grozny 1.[2]

Also, fighting in support zones could be vicious. ISIS senior commanders clearly inspired their charges with their physical presence as evidenced by the ISF's month-long brawl to take al Juhmuri Medical Complex, the "ISIS Pentagon" of Mosul.

In its military prime during the Battle of Mosul, SVBIEDs intimidated even the fastest and nastiest of the ISF fighters. ISIS appeared to pursue a high-payoff target list topped by ISF tanks and engineer blade assets with furious agility. ISIS commanders also frequently guided their SVBIEDs with small UAS, another manifestation of centralized C2. By tunneling through the internal walls of large structures, ISIS was able to make a handful of trained or untrained fighters appear as "snipers everywhere," a somewhat common report by the ISF on the most violent days. In July's closing days in west Mosul, we had to attack ISIS infantry small units with the same intensity as we had previously unleashed against SVBIEDs.

Furthermore, ISIS was more or less an Arab-styled army like our partners; it fought with remarkably centralized C2 at times. Along these lines, when senior commanders were present on the battlefield, they made a difference. ISIS

mortar-battery commanders also seemed to exercise strict control over target selection as well as ammunition breaks.

Finally, ISIS took full advantage when the ISF did not press the attack; sLTG A3 agreed that after fighting each other for several months, ISIS knew every signal that ISF troops were inadvertently sending when their attacks had stalled.

Our contributions to coalition IPB were important, but not because our analysis was exact or we had an innate understanding of ISIS's military capabilities, capacity or intentions. In fact, there was always much more we did not know than we did know. During the fight for west Mosul, every 25-30 days we released a classified one-page set of intelligence judgments that described how we evaluated ISIS tactics, capabilities, capacity and intentions in the changing environment. My hidden agenda with these projects was training while we fought, specifically pressing our talented analysts to report evidence-based arguments concisely and precisely. These IPB efforts spurred coalition dialogue – it helped get commanders and staffs talking. If we put our assessment out there, at least it caused other coalition stakeholders to critique it. These stakeholders included the ISF. Our IPB stirred their "red pen," too.

We periodically used a method that we dubbed "intel Armageddon" to energize our thinking. This approach played to our battalions' inherent competitive nature, and the brigade intelligence-support element (BISE) was always one of the contestants. "Intel Armageddon" was simple: when our analytics had lost altitude or needed a jump start, I sought three independent assessments of the same tactical problem.

For instance, as we began our focused IPB of Tal Afar while the fighting in Mosul wound down, we had two of the battalions and the BISE compete. We invited MG Pat White, former commanding general of CJFLCC-OIR, to participate in this session, and these three assessments fed our overall task-force IPB that we shared up-and-out, particularly with the ISF.

Our parent division at Fort Bragg, NC, also ensured our tactical UAS (TUAS) platoon's full manning with operators, and CJFLCC-OIR weighted the ISF fight in Nineveh Province with plenty of unarmed FMV capability. Foremost, we did not spend energy lamenting gaps in FMV coverage but rather focused on avoiding redundancies and fusing the available intelligence overlays we had. For perspective, these FMV assets provide commanders and analysts with a "soda straw" perspective of the battlefield. They are not magic. They do not find the enemy – humans do. The most critical aspects of FMV collection are the thinking behind where and when to place a sensor to increase odds of detection, as well as an analyst's ability to recognize the signatures that answer information requirements (IRs). In fact, these airborne military robots can create a counterproductive illusion of understanding, so we always drove to emphasize the analyst over the asset.

Over the course of nine months we generated more than 5,000 hours of TUAS FMV collection for the counter-fire fight, dynamic and deliberate targeting, IPB and ISF security operations to consolidate gains. With so much information coming in, we obviously had to meticulously prioritize analytic efforts to discern the answers to IRs. Because of the brutality along the FLoT, dynamic targeting consumed more than half our FMV collection and analytics during the Battle of Mosul, and I typically approved our BCT S-3's proposal or gave direction for the next day's intelligence-collection plan as late as our evening "operations, fires, intelligence, adviser" videoteleconferences. For dynamic targeting, TUAS was typically our "fixing tool," cross-queued off another intelligence source – whether an ISF unit in contact, a radar acquisition or an ISF human-intelligence (humint) tip.

Moreover, we already discussed how crucial Task Force Falcon's signaleers were in connecting this intricate network, but so were a bevy of other players. Behind the scenes, a host of mechanics, logisticians, engineers and tactical controllers fought to keep precious TUAS sorties in the fight.

We actually employed multiple government and contracted sensors based from several locations, allocating FMV reconnaissance to A&A teams by using hours as our unit of measure. Our message was "hurry to think, not to plan," as we considered how to optimize and prioritize our finite collection assets. We never accepted the harmful egalitarianism of the proverbial "peanut butter spread" when prioritizing sensors, connectors and analysts. SLTG A3's main-effort attack axis always mattered because "stimulate and exploit" was the backbone of dynamic targeting during current operations. Philosophically, we also erred on the side of driving an aggressive strike

tempo, directing sensors and analytics toward ISIS patterns we could take advantage of to maximize the lethal return on our investment.

Whenever practical, our targeting also integrated our task force's persistent threat-detection system (PTDS) based at the coalition's largest base in Nineveh. The 37th BEB once memorably used the PTDS to find and fix an ISIS small unit crossing the Tigris River, setting up Pastor to approve a fixed-wing strike that finished the startled enemy.

TUAS collection and analytics also contributed hugely to deliberate targeting. For example, our task force targeteers developed 30 deliberate-strike nominations leading up to the ISF attack on Tal Afar alone. Unlike our dynamic process, the TUAS served more as the "finishing tool" for our deliberate targeting, confirming or denying our assumptions about civilian presence prior to coalition strikes on ISIS sanctuaries, lines of communication, C2 nodes or caches. Our deliberate process complemented the special operations and CJFLCC-OIR efforts and, perhaps predictably, the coalition's intelligence-sharing and shared understanding improved as we transitioned from Mosul's dynamism to the deliberate isolation of Tal Afar.

Across the task force, A&A teams thickened the larger collection plan with their own organic fleets of small UAS, and the Iraqi army did similarly with off-the-shelf quadcopter drones. For example, 2-325 AIR's layered FMV reconnaissance for the ISF attack on Tal Afar was a framework employed similarly by all our field-grade A&A teams during the operation. First, company-level advisers used Raven and Portable Unmanned Aircraft small systems, complemented by Iraqi army quadcopters and queued by Iraqi army humint, to protect 15th Iraqi Army's units from close-in threats. Meanwhile, Shadow TUAS helped Task Force White Falcon's analysts identify ISIS fighting positions, obstacles and engagement areas near south Tal Afar's outer edge. Finally, the advisers may have also had operational control of long-dwell armed assets to hunt ISIS SVBIEDs staged within several blocks of the city's outer obstacle belts. All the while, signal bandwidth and power generation were in high demand.

LTC Sean McGee and CSM Scott Brinson, the team who led 1-325 AIR, may have contributed on an even greater scale than the rest of us. Task Force Red Falcon served under the operational control of CJFLCC-OIR and helped the Baghdad Operations Command (BOC) protect the capital by hunting down ISIS threats before they materialized in Baghdad. Perhaps most importantly, this A&A team helped the BOC implement a monthly G-2 conference, a forum for ISF intelligence officials to share information with each other. Before implementing the rhythmic G-2 conference, disparate Iraqi army commands funneled their reports back to the Ministry of Defense, a remarkably hierarchical approach that stymied timely decision-making and exacerbated gaps and seams along the figurative and physical boundaries.

With MG Martin's support, McGee's team capitalized on GoI concerns about Ramadan threat streams to persuade sLTG A3 to support the first conference in May 2017. CPT Tom Seagroatt, battalion S-2 for 1-325 AIR and a uniquely gifted MI Soldier, also did a lot more than crank out releasable products for our partners. These advisers wielded outsized influence with BOC influencers, helping the ISF fuse intelligence in-depth across the country as the coalition also added its intelligence overlay.

As we departed, the ISF certainly had a great deal of work to do to hone processes that promote unity of effort and shared understanding, but Task Force Red Falcon helped prod an initial paradigm shift in how ISF commanders shared and communicated among themselves. Their intellectual fingerprints on partner decision-making should not be taken lightly, and the proof was evident in the ISF's performance. During almost nine months of McGee's A&A partnership with the BOC, ISIS only struck Baghdad nine times. The ISF's determined security was impressive, particularly as ISIS increased attempted attacks by 300 percent following the fall of Mosul in July.

Two of our goals were to keep every MI Soldier and every sensor in the fight. As I stated previously, our BCT S-2, like several of his battalion-level counterparts, was also a valued finisher with military advice for us. Moreover, we have already described several examples of how we rolled our intelligence enterprise into multi-echelon engagement. Across the task force, we expected young MI talent to simplify the complex, communicate with clarity and give potent advice to highly educated and experienced generals, all through an Arabic translator.

Lethal targeting

Coalition targeting devastated the enemy's IDF capacity in northern Iraq while maintaining strict standards that protected civilians and critical infrastructure. Unsurprisingly, surface-to-surface lethality also depended on superb

long-range communications and sound ammunition-supply practices. As importantly, our IPB was entirely contextual. For example, Mosul required dynamic IPB, targeting and decision-making processes suited to the violent slog in dense urban terrain. ISIS seemingly turned most homes, schools and religious sites into fighting positions or caches and perniciously coerced civilians into action as human shields. It was a grinding, 150-day test of wills and uncomfortably close combat.

On the other hand, the ISF attack on Tal Afar offered the coalition more than 30 days to focus IPB on identifying most obstacle belts, conduct precision shaping and preparatory fires, and reposition assets that helped whittle down the ISIS disruption zone well before the ground attack began Aug. 20, 2017.

Implications of urban terrain

With years to prepare the defense of Mosul, ISIS commonly buttressed its cover and concealment by using firing positions in sensitive sites or the upper stories of tall structures. As just one prominent example, days before ISIS regrettably destroyed the al-Nuri Grand Mosque in the Old City district, it began firing mortars from the grounds' courtyard. Such recklessness was the norm for ISIS, so our team relied on precision munitions and high-angle attacks that could overcome the Mosul's jumble of intervening urban crests.

Also, Task Force Falcon leaned on sensible weapons solutions such as Excalibur, fired at very high angles and set to delay, or M1156 precision-guided kits for urban counter-fire missions. In retrospect, however, we consistently struggled to adequately arrange our sensors to exploit strikes, and assessing battle damage in complex urban terrain was always a challenge as ISIS continually adjusted its tactics frequently.

Counter-fire

The fires fight in Mosul taught us that Q-53 radar acquisitions provide a critical overlay. ISIS fought its mortar platoons in a remarkably centralized manner, noticeably changing priorities or shifting ammunition around as the fight progressed. Over time, radar acquisitions fed our running estimates of ISIS's eroding capabilities and morphing intentions. We also saw patterns we could exploit. Still, our radar acquisitions provided just one overlay, and we only detected a fraction of the shots fired in Mosul's dense urban terrain. Finally, ISIS was a thinking enemy, bent on survival: it adjusted its tactics frequently.

Our counter-fire fight aimed to assure the partner. This challenge required us to threat-model ISIS artillery and mortar teams, burning a number of intellectual calories to understand how they moved, commanded and supplied their teams. We used Q-53 radar acquisitions as a baseline overlay but added ISF reporting, FMV analysis and the Q-50 radars our A&A teams often employed.

Also, we frequently fought multiple FMV assets simultaneously under the task force counter-fire cell. Integrated and predictive analysis set us up to focus the team's FMV "soda straws," the handful of fixed-wing reconnaissance robots we controlled, in predicted positions of advantage to find and fix the enemy's IDF assets. Meanwhile, we used everything from coalition jets to rockets to attack ISIS as we worked with and through the one-star airspace and strike coordination teams at combined joint-operations centers in Erbil and Baghdad. Indeed, we even counter-fired with M142 high-mobility artillery-rocket systems at times.

Artillery-fire support

As revealed previously, senior ISF commanders did not do detailed planning, and there were no ISF combined-arms rehearsals of any sort. Going back to the six A's, we *assured* them with our detailed fires planning, *anticipated* their schemes of maneuver by leveraging the "lethal O/C/T network" and our A&A battle rhythm, and we remained *agile* by shifting artillery and radar positions and priorities on imperfect information. I suspect that only very senior ISF generals ever really had a surface-level understanding of our fires plans, and they never shared these details down-and-in. However, sLTG A3 was counting on Gibson's Black Falcons to synchronize the French contingent's 155mm Caesar cannons, other coalition strike assets and American howitzers through exhaustive coalition rehearsals.

Moreover, there was always some level of *assist* to *advise* as we previously discussed. SLTG A3 valued Gibson's detailed briefings, making our BCT fire-support coordinator another prominent finisher at times. In fact, we used pre-assault artillery fires to suppress enemy fighting positions, but because the ISF rarely started attacks at

planned times, we learned to use another round of "with assault fires" that were synchronized with the ISF's actual crossing of the line of departure.

We applied similar thinking for the employment of rotary wing, rocket and fixed-wing assets.

Figure 2. SPC Jesse Patchell, SPC Ben Richmond, SPC Zachary Folsom, SGT Kraig Bradley and 1LT Maurice Manning, mortarmen deployed in support of CJTF-OIR and assigned to 2nd BCT, 82nd Airborne Division, fire mortars in support of 9th Iraqi Army Division during the offensive to liberate West Mosul from ISIS. (*Photo by SSG Jason Hull*)

In their own way

It was a privilege to represent our Army and our storied division with the coalition during OIR. We are also honored to have served under two tremendous divisions during the drive to help the ISF dominate our nations' shared enemy. We could not have been prouder of our partners as we departed Iraq in September; the ISF had liberated well over 4 million people and 40,000 kilometers of terrain, and more than a quarter-million people had returned to their homes in Mosul. Perhaps the most heartening aspect was that sLTG A3 and the ISF accelerated the campaign against ISIS following their victorious Battle of Mosul.

During our mission to help ISF and hurt ISIS every day, we never lost sight of the coalition's interests. We kept a consistent azimuth guided by five big ideas and a disciplined battle rhythm. We had to produce results to retain the ISF's trust; there was always much more to serving the ISF and coalition well than merely advising and assisting. A learning organization, Task Force Falcon tinkered with its approach over time, eventually interpreting a formula that practiced all six A's of A&A: *advise*, *assist*, *accompany*, *assure*, *anticipate* and *agility*. Still, the campaign was incurably human, and naturally, relationships mattered. Solid relationships kept everyone goal-oriented on frustrating days, and our connections introduced a deeper accountability to the partnership.

By breaking down ISIS in their own way, the ISF's leadership and ownership of the Battle of Mosul embodied the essence of warfare by, with and through a partner whose success was the very measure of our success. I still clearly remember the day I sensed the ISF's mass was finally toppling the enemy's Juhmuri Hospital fortress in west

Mosul. It was the visible beginning of the end for ISIS, and our partners were still leading the day's deadly work. They continue to do so today.

COL Pat Work commands 2nd BCT, 82nd Airborne Division, Fort Bragg, NC. Previous assignments include commander, 3rd Battalion, 187th Infantry Regiment, 101st Airborne Division (Air Assault), Fort Campbell, KY; aide-de-camp to the 20th Secretary of the Army, Washington, DC; S-3, 1st Battalion, 325th AIR, Fort Bragg; commander, Company C, 2nd Battalion, 75th Ranger Regiment, Fort Lewis, WA; and commander, Company B, 1st Battalion, 23rd Infantry Regiment, Fort Lewis. His military schooling includes U.S. Marine Corps War College, Command and General Staff Officer's Course, Infantry Maneuver Captain's Career Course and Ranger, Pathfinder, airborne and air-assault schools. He holds a bachelor's of science degree in systems engineering from the U.S. Military Academy and a master's of arts degree in public policy from Georgetown University.

Notes

[1] Joint Publication 3-20, ***Security Cooperation***, May 23, 2017, cites Department of Defense Instruction 5000.68 while describing security-force assistance: "With, through and by. Describes the process of interaction with foreign security forces that initially involves training and assisting. … The next step in the process is advising, which may include advising in combat situations (acting "through" the forces)."

[2] Timothy L. Thomas and Lester W. Grau, "Russian Lessons Learned from the Battles for Grozny," ***Marine Corps Gazette*** 84, No. 4 (April 2000), https://www.mca-marines.org/gazette/2000/04/russian-lessons-learned-battles-grozny.

Acronym Quick-Scan

A&A – advise and assist
A3E – advice, assist, accompany and enable
AIR – airborne infantry regiment
BCT – brigade combat team
BEB – brigade engineer battalion
BISE – brigade intelligence-support element
BOC – Baghdad Operations Command
BSB – brigade-support battalion
C2 – command and control
CJFLCC – Coalition Joint Forces Land Component Command
CJTF – combined joint task force
COR – contracting-officer representative
CTC – combat-training center
Fedpol – federal police
FLoT – forward-line-of-troops
FMV – full-motion video
FSR – field-service representative
GoI – Government of Iraq
Humint – human intelligence
IDF – indirect fires
IPB – intelligence preparation of the battlefield
IR – information requirement
ISF – Iraqi Security Forces
ISIS – Islamic State of Iraq and Syria
JTAC – joint terminal attack controller
MI – military intelligence
O/C/T – observer/coach/trainer
OIR – Operation Inherent Resolve
Opfor – opposing force
PTDS – persistent threat-detection system
SADOC – Salah ad Din Operation Command
SVBIED – suicide vehicle-borne improvised explosive device
TPE – theater-provided equipment
TUAS – tactical unmanned aerial systems
UAS – unmanned aerial systems
VBIED – vehicle-borne improvised explosive device